

COAL LAB 6

Task#1

```
INCLUDE Irvine32.inc
.data
Val DWORD ?
space BYTE " ",0
myStr BYTE "Genrate list of 20 Random numbers from 0 to 990",0dh, 0ah
.code
main PROC
mov edx, offset myStr
call writeString
mov edx, offset space
mov ebx, 1
mov ecx, 20

L:
    mov eax, +991
    call RandomRange
    call writeDEC
    mov eax, 5

    call Delay
    call crlf
    mov Val, ecx
    mov ecx, ebx
    L1:
        call writestring
    Loop L1
    add ebx, 1
    mov ecx, Val
Loop L
exit
main ENDP
END main
```

Output

```
Genrate list of 20 Random numbers from 0 to 990
604
792
135
736
696
932
526
158
165
598
350
863
805
114
813
403
281
713
226
594
Press any key to continue . . .
```

Task#2

```
INCLUDE Irvine32.inc
.data
x WORD ?
y WORD ?
.code
main PROC
mov ecx, 100
L1:
call getMaxxy
mov x, ax
mov y, dx

movzx eax, x
call RandomRange

mov dh, al

movzx eax, y
call RandomRange
mov dl, al
mov eax, '*'

call Gotoxy
call writeChar

mov eax, 100
call Delay

Loop L1
exit
main ENDP
```

Output



Task#3

```
INCLUDE Irvine32.inc
.data
space BYTE " ",0
prompt1 BYTE "10 unsigned Random Numbers from 0 to 4, 294, 967, 294",0dh, 0ah, 0
prompt2 BYTE "10 signed Random Numbers from -50 to +49",0dh, 0ah, 0
.code
main PROC
mov edx, offset prompt1
call writeString
mov edx, offset space
mov ecx, 10
L1:
mov eax, 5
call randomRange
call writeDec
call writeString
mov eax, 295
call randomRange
call writeDec
call writeString
mov eax, 968
call randomRange
call writeDec
call writeString
mov eax, 295
call randomRange
call writeDec
call crlf

Loop L1
call crlf
mov edx, offset prompt2
call writeString
```

```

mov edx, offset space
call crlf
mov ecx, 10
L2:
mov eax, 99

call randomRange
sub eax, 50
call writeInt
call writeString
Loop L2
call crlf
call crlf
exit
main ENDP
END main

```

Output

```

10 unsigned Random Numbers from 0 to 4, 294, 967, 294
4 217 639 72
2 240 538 188
3 184 36 172
3 71 1 102
1 164 526 122
2 163 454 108
0 43 797 135
1 22 447 112
2 77 465 123
4 214 966 241

```

```

10 signed Random Numbers from -50 to +49
-13 +32 -29 +13 +41 -20 -25 +28 +48 -27
Press any key to continue . . .

```

Task#4

```
INCLUDE Irvine32.inc
.data
mySize=500
fileName BYTE "MyFile.txt",0
prompt BYTE "Enter a string:",0dh, 0ah






mystr BYTE mySize DUP(?)
stringLength DWORD ?
fileHandle Handle ?
.code
main PROC
    mov edx, offset fileName
    call CreateOutputFile
    mov fileHandle, eax
    mov edx, offset prompt
    call writeString
    mov ecx, mySize
    mov edx, offset mystr
    call Readstring
    mov stringLength, eax
    mov eax, fileHandle
    mov edx, offset mystr
    mov ecx, stringLength
    call WriteToFile
    call CloseFile

    exit
main ENDP
END main
```

Output

```
Enter a string:
Pakistan v/s India
Press any key to continue . . .
```

File

 Debug	10/24/2021 9:53 AM	File folder	
 My	10/24/2021 8:52 AM	VC++ Project	5 KB
 My.vcxproj	10/24/2021 8:52 AM	VC++ Project Filte...	1 KB
 MyFile	10/24/2021 9:57 AM	Text Document	0 KB
 Source	10/24/2021 9:56 AM	Assembler Source	2 KB

 MyFile - Notepad

File Edit Format View Help

Pakistan v/s India